CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCSICO BAY REGION

ORDER NO. 90 - 129

WASTE DISCHARGE REQUIREMENTS FOR:

TWIN CREEKS HOMEOWNERS ASSOCIATION, AND
COUNTY OF SOLANO, SOLANO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board), finds that:

1. The Twin Creeks Homeowners Association owns and operates the Twin Creeks Wastewater Facility which serves the 39-unit Twin Creeks condominium development. The Twin Creeks development is located immediately west of Green Valley Road around the confluence of Wild Horse Creek and Green Valley Creek, in the unincorporated, unsewered, Green Valley area of Solano County, about seven miles west of the City of Fairfield.

2. The Twin Creeks Wastewater Facility is an on-site, community wastewater treatment and disposal system consisting of a sewer collection system, an extended aeration, activated sludge, package treatment plant, and a subsurface leachfield. The wastewater is from domestic sources only, since the development does not include any commercial or industrial facilities.

3. The treatment plant has a rated design treatment capacity of 9,000 gallons per day (gpd), and presently treats an average flow of about 6,000 gpd. Wastewater flows by gravity into a wet well equipped with two pumps that lift the wastewater into the package plant via a flow splitter box. The pumped influent is split to allow a constant flow through the treatment units, with excess flow returned to the wet well. The package plant, contained in an above-ground concrete tank, includes an aeration basin, a settling basin, and a waste activated sludge digester. Clarified effluent flows into a sump, is pumped through an upflow sand filter, and then flows into a finished water sump from which it flows to the leachfield. Backwash water for the sand filter is returned to the influent wet well. Accumulated digester sludge is periodically pumped to a storage compartment, and then pumped out and hauled away by a septage pumper for disposal to a permitted municipal treatment plant.

4. Treated effluent from the package plant flows by gravity via about 350 feet of four-inch diameter PVC sewer pipe to the on-site subsurface leachfield. The leachfield consists of about 4,440 lineal feet of standard leachfield trenchs within an area of 1.14 acres. Effluent is distributed throughout the leachfield by a series of eight distribution boxes, with each box serving twelve trenches. The leachfield site is at the southern edge of the development property, and extends onto an

easement on the northern edge of the adjacent Green Valley Country Club property. Attachment A of this Order is a map showing the location of the treatment plant and leachfield facilities.

5. The discharge is currently governed by waste discharge requirements adopted by the Board on September 20, 1977 in Order No. 77-128.

6. The Twin Creeks Homeowners Association submitted a Report of Waste Discharge dated April 25, 1990 in application for reissuance of waste discharge requirements.

7. The Board's Resolution No. 78-14, Policy on Discrete Sewerage Facilities, states in part:

" This Regional Board will apply the following principles to all wastewater discharges:

   1. The system must be designed, constructed, and installed so as to be capable of preventing pollution or contamination of the waters of the State or creating nuisance for the life of the development.

   2. The system must be operated, maintained and monitored so as to continually prevent pollution or contamination of the waters of the State and the creation of a nuisance.

   3. The responsibility for both of the above must be clearly and legally assumed by a public entity with the financial and legal capability to assure that the system provides protection to the quality of the waters of the State for the life of the development. "

8. On June 21, 1977 the County of Solano Board of Supervisors entered into an agreement with Twin Creeks, a partnership of the project developers, regarding responsiblity for the Twin Creeks wastewater system. Under this agreement the Homeowners Association is obligated to maintain and operate the wastewater facilities in compliance with the Board's regulations, and to pay all associated costs or charges, while the County is given supervisory powers to direct the operators of the facilities, as required, to ensure compliance with the Board's regulations and all applicable state laws and policies.

9. This agreement, which meets the requirements of the Board's Resolution No. 78-14, creates joint legal responsibilities for operation and maintenance of the Twin Creeks wastewater facilities. For purposes of this Order, the County of Solano and the Twin Creeks Homeowners Association are hereinafter collectively called the Discharger.

10. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 17, 1986, and the State Water Resources Control Board approved

the revised Basin Plan on May 21, 1987. The requirements of this Order are consistent with the revised Basin Plan.

11. The Basin Plan identifies existing and potential beneficial uses of, and water quality objectives for, the surface waters and ground waters in the San Francisco Bay Basin Region.

12. The existing beneficial uses of Green Valley Creek and its tributaries, including Wild Horse Creek, include:

    a. Fresh Water Replenishment
    b. Water Contact Recreation
    c. Non-contact Water Recreation
    d. Warm Fresh Water Habitat
    e. Cold Fresh Water Habitat
    f. Wildlife Habitat
    g. Fish Spawning

13. The existing or potential beneficial uses of ground waters in the Green Valley area include:

    a. Municipal and Domestic Supply
    b. Agricultural Supply
    c. Industrial Water Supply

14. The County of Solano approved a Negative Declaration for the Twin Creeks development and its wastewater system in accordance with the California Environmental Quality Act (Public Resources Code Section 21000, et seq.). The project as approved by the County of Solano will not have a significant effect on water quality.

15. The Board has notified the Twin Creeks Homeowners Association, the County of Solano, and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge described above, and has provided them with an opportunity for a public hearing and an opportunity to submit written views and recommendations.

16. The Board, in a public hearing, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Discharger, pursuant to the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. <u>Discharge Specifications</u>

1. There shall be no bypass or overflow of untreated or partially treated wastewater to waters of the State from the Discharger's wastewater collection, treatment, storage or disposal facilities.

2. Neither the treatment nor the discharge of pollutants shall create a pollution, contamination or nuisance as defined by Section 13050 of the California Water Code.

3. The discharge of wastes in excess of 9,000 gallons per day from the wastewater treatment plant is prohibited.

4. The discharge of toxic substances into the collection system, treatment plant or leachfield area which will adversely affect the normal biological treatment mechanisms of the subsurface leachfield is prohibited.

5. Wastewater discharged to the leachfields shall:

   a. Remain below ground at all times; and
   b. Not be allowed to leach, seep or flow into surface waters of the State.

6. The discharge of waste shall not degrade the quality of any groundwater used for domestic purposes or cause an increase in any quality parameter that would make groundwater unsuitable for irrigation use.

7. Effluent discharged from the wastewater treatment plant shall meet the following quality limits at all times, in any grab sample:

| Parameter | Effluent Limit |
|---|---|
| a. Biochemical Oxygen Demand (5-day, 20° C) ..... | 50 mg/l, maximum |
| b. Total Suspended Solids ..... | 50 mg/l, maximum |
| c. Settleable Matter ..... | 0.1 ml/l-hr, maximum |
| d. pH ..... | 6.0, minimum; 9.0, maximum. |

B. PROVISIONS

1. The treatment plant influent wet well shall be equipped with a high water level alarm as a safeguard against sewage overflows. In order to provide adequate safeguard in the event of a treatment plant power failure, the alarm system shall be served by an independent power supply, or adequate storage capacity shall be available to contain all influent flow and ensure that no overflow will occur.

2. The leachfield area shall be managed to prevent ponding and/or other saturated soil conditions from occurring at any time, other than as a result of rainfall or stormwater runoff.

3. Irrigation of the leachfield surface shall be allowed only in accordance with a Leachfield Management Plan approved by the Board's Executive Officer.

4. All equipment, including pumps, piping, valves, etc, which may at any time contain wastewater shall either be isolated from public access by adequately secured fencing, or adequately and clearly identified with warning signs informing the public that the water contained therein is wastewater and is not safe for drinking or contact.

5. All wastewater treatment facilities shall be adequately protected from erosion, washout, and flooding from a rainfall event having a predicted frequency of once in 100 years.

6. Collected screenings, sludges, and other solids removed from the liquid wastes shall be disposed of at a legal point of disposal, and in accordance with the provisions of Chapter 15 of Title 23 of the California Administration Code. For the purpose of this requirement, a legal point opf disposal is defined as one form which waste discharge requirementys have been prescribed or waived by a Regional Water Quality Control Board, and which is in full compliance therewith.

7. The Discharger shall comply with all sections of this Order immediately upon adoption.

8. The Discharger shall comply with the Self-Monitoring Program for this Order as adopted by the Board and as may be amended by the Executive Officer.

9. The Discharger shall maintain in good working order and operate, as efficiently as possible, all equipment installed, or as modified, to achieve compliance with this Order.

10. The wastewater treatment facilities shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Chapter 4, Subchapter 14, Title 23 of the California Code of Regulations.

11. The Discharger shall permit the Board or its authorized representatives, in accordance with Section 13267(c) of the California Water Code:

    a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;

    b. Access to and copy of, at reasonable times, any records that must be kept under the conditions of this Order;

    c. Inspection, at reasonable times, of any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; or

    d. To photograph, sample or monitor, at reasonable times, for the purpose of assuring compliance with this Order.

12. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharge shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to this Board.

13. The Discharger shall file with the Board a Report of Waste Discharge at least 180 days before making any material change in the character, location, or volume of the reuse, except for emergency conditions in which case the Board shall be notified.

14. After notice and opportunity for a hearing, this Order may be terminated or modified for cause including, but not limited to:

    a. Violation of any term or condition of this Order;

    b. Obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts;

    c. A change in any condition that requires either a temporary or permanent change in the authorized treatment or discharge;

    d. Endangerment to public health or environment that can only be regulated to acceptable levels by Order modification or termination.

15. The waste discharge requirements prescribed by this Order supercede the requirements prescribed by the Board's Order No. 77-128. Order No. 77-128 is hereby rescinded.

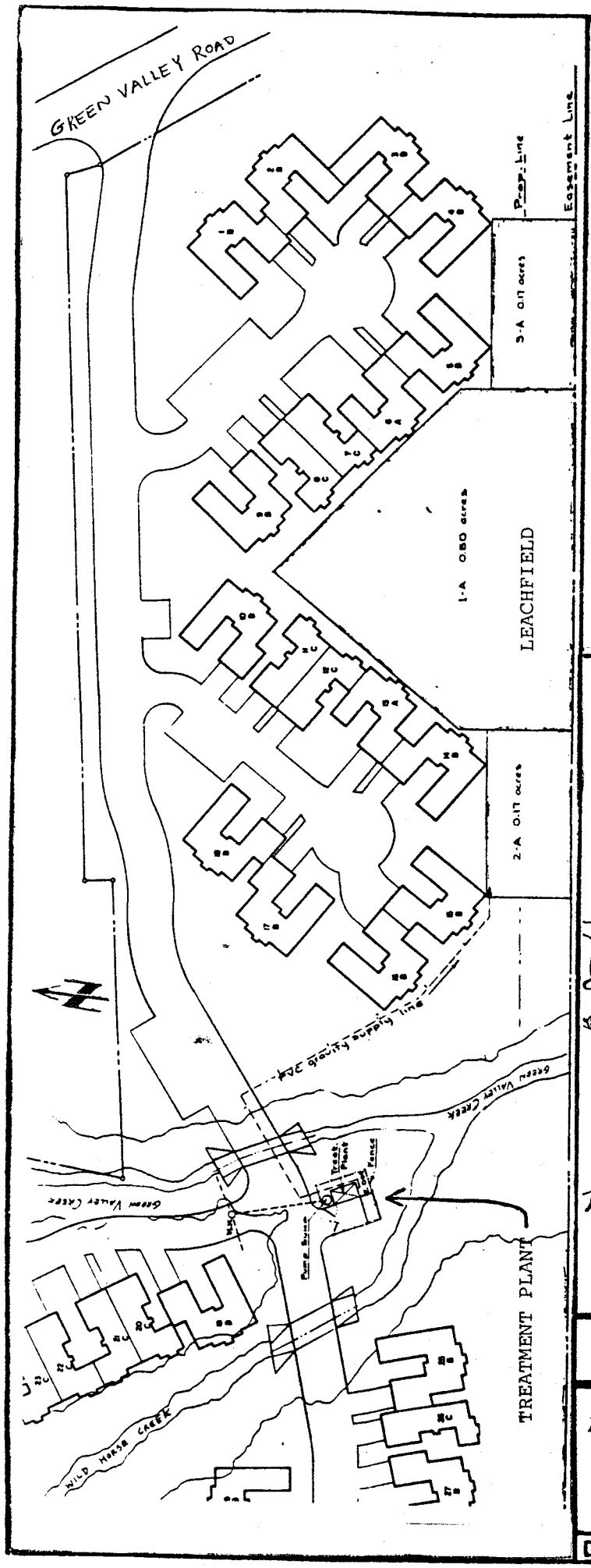
16. This Order is subject to Board review and updating, as necessary to comply with changing State and Federal laws, regulations, policies, or guidelines; changes in this Regional Board's Basin Plan; or changes in the discharge characteristics. This Order will be reviewed periodically to determine the need for updating.

I, Steven R. Ritchie, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on September 19, 1990.

STEVEN R. RITCHIE
Executive Officer

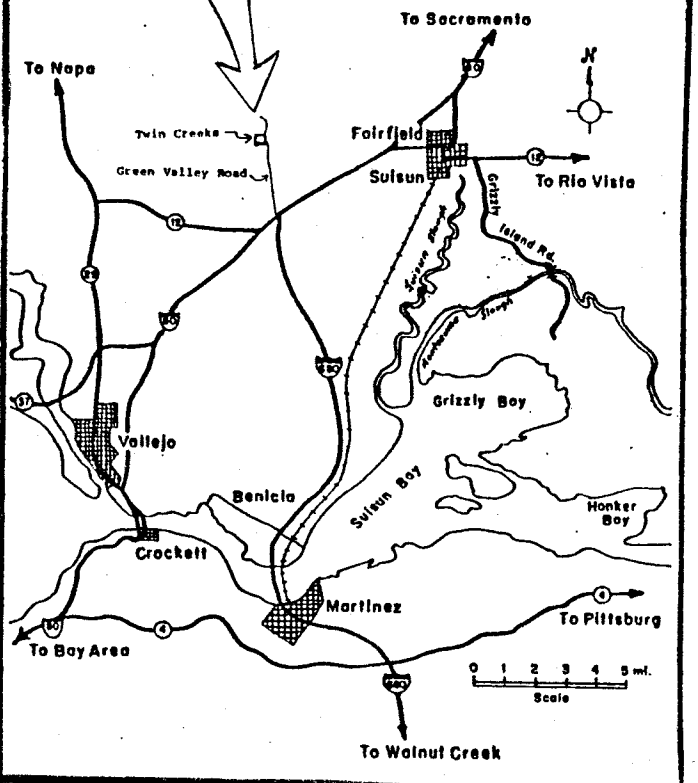
Attachments:
A. Location Map
Self-Monitoring Program

[File No. 2129.2034]
[Originator/BDA]
[Reviewer/RJC]




← FACILITY MAP

LOCATION MAP →




**STATE OF CALIFORNIA**
**REGIONAL WATER QUALITY CONTROL BOARD**
**SAN FRANCISCO BAY REGION**

ATTACHMENT A: LOCATION MAP

TWIN CREEKS WASTEWATER FACILITY

| DATE: 9/19/90 | BDA | ORDER NO. 90-129 |
|---|---|---|

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

# SELF-MONITORING PROGRAM

FOR

TWIN CREEKS HOMEOWNERS ASSOCIATION,

AND COUNTY OF SOLANO,

SOLANO COUNTY

(TWIN CREEKS WASTEWATER FACILITY)

ORDER NO. 90 - 129

# TWIN CREEKS WASTEWATER FACILITY SELF-MONITORING PROGRAM

## I. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16.

The principle purposes of a monitoring program by a waste discharger, also referred to as a self-monitoring program, are:

1. To document compliance with waste discharge requirements and prohibitions established by this Regional Board; and

2. To facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge.

## II. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to Code of Federal Regulations Title 40, Section 136 (40 CFR S136), or other methods approved and specified by the Executive Officer of this Regional Board.

Water and waste analyses shall be performed by a laboratory approved for these analyses by the State Department of Health Services (DOHS), or a laboratory waived by the Executive Officer from obtaining a DOHS certification for theseanalyses.

The director of the laboratory whose name appears on the certification, or his/her laboratory supervisor who is directly responsible for the analytical work performed shall supervize all analytical work including appropriate quality assurance/quality control procedures in his/her laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

## III. DEFINITION OF TERMS

A. A grab sample is defined as an individual sample collected in a short period of time not exceeding 15 minutes. Grab samples are used primarily in determining compliance with daily maximum limits and instantaneous maximum limits. Grab samples represent only the condition that exists at the time the sample is collected.

B. A flow sample is defined as the accurate measurement of a flow volume using a properly calibrated and maintained flow measuring device, or as calculated from properly maintained pump useage records for an accurately calibrated pump.

C. Standard Observations

1. Surface Waters

a. Estimated flow rate, in cubic feet per second (cfs) or equivalent flow volume units.

b. Evidence of any floating or suspended materials of waste origin. If present, indicate apparent or known source and extent of area affected.

c. Evidence of any unusual discoloration or turbidity. If present, indicate apparent or known source, description of color, and extent of area affected.

2. Treatment Plant

a. Odor - presence or absence. If present, indicate apparent or known source, characterization, and extent of area affected.

b. Evidence of wastewater seeping, spilling, overflowing or otherwise escaping in an uncontrolled manner from the treatment plant.

c. Weather characteristics (eg clear, overcast, rainy, etc.).

d. Air temperature.

e. Wind - direction and estimated velocity.

f. Precipitation - Total precipitation during a specified time period, not to exceed seven days, preceeding the day of observations.

3. Leachfield

a. Evidence of saturated surface soil conditions. (Show affected area on a sketch).

b. Evidence of wastewater surfacing, leaching, seeping, or otherwise escaping from subsurface leachfield. (Show affected area on a sketch).

c. Observations for monitoring all surface irrigation of the leachfield, in accordance with a Leachfield Management Plan approved by the Board's Executive Officer.

4. Leachfield Observation Wells

Depth below ground surface of standing water, if any, observed in each observation well.

## IV. DESCRIPTION OF SAMPLING STATIONS

| Station | Description |
|---|---|
| **A. TREATMENT PLANT EFFLUENT** | |
| E-1 | At a point in the effluent from the wastewater treatment plant at which all waste tributary to the leachfield is present. |
| **B. SURFACE WATERS** | |
| C-1 | At a point in Green Valley Creek downstream of the confluence with Wild Horse Creek, near the southern boundary of the Twin Creeks property. |
| C-1-R | At a point in Green Valley Creek upstream of the treatment plant and leachfield area, near the northern boundary of the Twin Creeks property. |
| C-2-R | At a point in Wild Horse Creek upstream of the treatment plant and leachfield area, near the northern boundary of the Twin Creeks property. |
| **C. TREATMENT PLANT** | |
| P-1 through P-3 | At points located equidistant around the periphery of the treatment plant. |
| **D. LEACHFIELD** | |
| L-1 through L-8 | At areas of the leachfield site centered at each of the eight distribution box/observation well locations, and including the portion of the leachfield served by each respective distribution box. |
| **E. LEACHFIELD OBSERVATION WELLS** | |
| W-1 through W-8 | Observation wells located adjacent to each of the eight leachfield distribution boxes, consisting of three-inch diameter, perforated PVC pipe extending down to the leachfield trench bottom. |

NOTE: A sketch showing the locations of the sampling stations described above shall accompany the first monitoring report, and subsequent reports when station locations are changed or a violation or threatened violation is reported.

## V. SCHEDULE OF SAMPLING, MEASUREMENTS, AND ANALYSIS

A. The Discharger is required to perform observations, sampling, measurements and analyses according to the schedule given in Table 1 (attached).

B. The Discharger shall perform observations and measurements for monitoring all surface irrigation of the leachfield in accordance with a Leachfield Management Plan approved by the Board's Executive Officer.

## VI. REPORTS TO BE FILED WITH THE REGIONAL BOARD

### A. Self-Monitoring Reports

Written reports for each calendar month shall be submitted to this Regional Board's office by the fifteenth day of the following month. The reports shall consist of the following:

1. Letter of Transmittal

A letter transmitting the self-monitoring reports should accompany each report. Such a letter shall include a discussion of requirement violations found during the reporting period, and actions taken or planned for correcting noted violations, such as operation or facility modifications. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory.

The transmittal letter shall contain a statement by the Discharger, or the Discharger's authorized agent, under penalty of perjury, that to the best of the signer's knowledge the report is true, accurate and complete.

2. Results of Analyses and Observations

Tabulations of the results from each required analysis and/or observations specified in Table 1 (attached) by date, time, type of sample, and sample station.

### B. Report of Permit Violation

In the event the Discharger violates or threatens to violate any condition of the waste discharge requirements due to:

a. Maintenance work, power failure, or breakdown of wastewater transport or treatment equipment;

b. Accidents caused by human error or negligence; or

c. Other causes such as acts of nature,

VI.B. (continued)

the Discharger shall notify the Regional Board office by telephone as soon as the Discharger or the Discharger's agents have knowledge of the incident.

Written confirmation of this notification shall be submitted within two weeks of the telephone notification. The written report shall include pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to correct the problem and the dates thereof, and what steps are being taken to prevent the problem from recurring.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in the Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 90-129.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

STEVEN R. RITCHIE
Executive Officer

Effective Date 9/19/90

Attachments:

Table 1 - Schedule for Sampling, Measurements, and Analysis

[File No. 2213.2034]
[Originator/BDA]
[Reviewer/RJC]

TABLE 1 - SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

(TWIN CREEKS WASTEWATER FACILITY SELF-MONITORING PROGRAM)

| SAMPLING STATION | E-1 | | | All C Stas. | | All P Stas. | | All L Stas. | | All W Stas. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TYPE OF SAMPLE | G | Cont | | G | | O | | O | | O | | | |
| | | | | | | | | | | | | | |
| Flow - Volume and Rate (gallons, & gallons/day) | | (1) W | | | | | | | | | | | |
| BOD, 5-day, 20°C (mg/l & kg/day) | W | | | | | | | | | | | | |
| Total Suspended Solids (mg/l & kg/day) | W | | | | | | | | | | | | |
| Settleable Solids (ml/l-hr) | 2W | | | | | | | | | | | | |
| Oil and Grease (mg/l & kg/day) | 2W | | | | | | | | | | | | |
| Coliform, Total (MPN/100 ml) | | | | Q | | | | | | | | | |
| pH (units) | W | | | | | | | | | | | | |
| Dissolved Oxygen (mg/l & % Saturation) | W | | | Q | | | | | | | | | |
| Sulfides, Total & D'solved (if DO < 2.0 mg/l) (mg/l) | W | | | | | | | | | | | | |
| Ammonia Nitrogen (mg/l & kg/day) | Q | | | Q | | | | | | | | | |
| Nitrate Nitrogen (mg/l & kg/day) | Q | | | Q | | | | | | | | | |
| Total Organic Nitrogen (mg/l & kg/day) | Q | | | Q | | | | | | | | | |
| Total Phosphate (mg/l & kg/day) | Q | | | Q | | | | | | | | | |
| All Applicable Standard Observations | | | | W | | W | | W (2) | | W | | | |

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
Cont = continuous sampling
O = observations

FREQUENCY OF SAMPLING

W = once each week
2W = every two weeks
Q = quarterly (every 3 months)

FOOTNOTES

(1) Flow measurement shall be monitored at least weekly. For each monitoring interval, report the following: (a) Flow Volume (gallons; total since previous observation), and (b) Average Daily Flow (gallons per day; calculated from total flow values).

(2) Leachfield observations shall include monitoring of all surface irrigation of the leachfield, in accordance with the approved Leachfield Management Plan.